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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/696,116	10/25/2000	Richard H. Boivie	YOR920000592US1	4406

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EXAMINER

LE, HIEU C

ART UNIT	PAPER NUMBER
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2142

DATE MAILED: 06/17/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/696,116

Applicant(s)

BOIVIE, RICHARD H. 

Examiner

Hieu c. Le

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— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 April 2004.  
2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 8-20 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 8-20 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

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1. Applicant's election without traverse of group II (claims 8-20) in the reply filed on 4-14-04 is acknowledged.

***Claim Rejections - 35 USC § 102***

**102(f)** *The article to Chang et al. names, Nancy Felman which has not been named as inventors. Applicant must resolve the inventorship in response to this action. See MPEP 2137.*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(f) he did not himself invent the subject matter sought to be patented.

3. Claims 8-10, 12-15, 17-19 are rejected under 35 U.S.C. 102(a) & (f) as being anticipate by Rick Boivie et al, " Small group Multicast: a new solution for multicasting on the Internet", IEEE Internet computing, p. 75, p. 79, May 2000.

As to claim 1, Boivie discloses a method for distributing web content objects efficiently [ a reliable broadcast of audio and video multicasting on the Internet (page 75, paragraph" Multicasting models)] across a network of information processing units and intermediate nodes [ Fig. 1, host A, B, C, D information processing units R1, R2, R3 routers (intermediate nodes)], the method on an intermediate node comprising the steps of:

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receiving a multicast packet [each router receiving along the path from the source to destination parses the SGM header of the received packet ( p. 77; Lc, lines 1-8, Mc, lines 14-16, Fig. 1)].

determining one or more "next hops" that the packet should be forwarded to [each router partitions the destinations based on each destination's next hop (p. 77, Lc, lines 7-10 & Mc, lines 17-21)]; and

forwarding one copy of the packet to each of the "next hops" [ the router replicate the packet to create one copy for each next hop and route each copy to next hops (p. 77, Mc lines 22-29)].

As to claim 9, Boivie further discloses wherein the determining and forwarding steps use a Small Group Multicast scheme [ SGM (small group Multicast scheme (p. 77, Rc, last two lines)].

As to claim 10, Boivie further discloses further comprising the step of repetitively executing the determining and forwarding steps for a plurality of one or more packets [ one or more packets (p. 77, Lc, lines 1-3, Rc, lines, 6-8)].

As to claim 12, Boivie further discloses wherein the packet comprises a small group multicast packet [ the packet has an SGM header (i.e. SGM packet) (p. 77, Lc, lines 1-5)].

As to claim 13, refer to claim 8 rejection. Boivie further discloses the packet containing address information for a set of destinations [ the packet's SGM header contains a list of destinations (p. 77, Lc, lines 1-7)] and a computer readable medium including instructions [ software deploy of SGM (p. 79, Lc, lines 6-30)].

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As to claim 14, refer to claim 8 rejection.

As to claim 15, Boivie further discloses further comprising the instructions for: repetitively executing the determining, replicating and forwarding steps for each newly received packet [ the packet is processed at each router in path from the source to destination and at each router, the determining, replicating and forwarding steps are repeated for each newly received packet (p. 76- p. 78, paragraph SGM solution and Fig. 1)].

As to claim 17, refer to claim 13 rejection.

As to claim 18, refer to claim 14 rejection.

As to claim 19, refer to claim 15 rejection.

4. Claims 11, 16, 20 are rejected under 35 U.S.C. 102(a) as being anticipate by Rick Boivie et al, " Small group Multicast: a new solution for multicasting on the Internet", IEEE Internet computing, p. 75, p. 79, May 2000, as applied to claims 8,13,17 above and further in view of McCanne et al. (6,415,323).

As to claim 11, Boivie further discloses processing ACKs and/or NAKs [ the SGM support reliable Multicast by incorporating an ACK/NACK scheme between the source and the receivers (p. 78, Rc, lines 44-48) ].

Boivie does not disclose performing packet retransmissions.

McCanne discloses a system for packet routing from a source node to a destination node (col. 3, lines 55-60). The system exploits scalable addressing, adaptive routing, hierarchical naming (col. 4, lines 38-41). When the service node fails and some

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packets were lost during the failover process. The service node retransmits only those packets that were lost (col. 17, lines 1-18).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Mc Canne's teachings to modify the method of Rick by retransmitting the lost packets in order to reliably transmit the packets to their destination and eventually arrive correctly that destination.

As to claim 16, refer to claim 11 rejection.

As to claim 18, refer to claim 11 rejection.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hieu Le whose telephone number is (703) 306-3101. The examiner can normally be reached on Monday to Friday from 7:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Harvey, can be reached on (703) 305-9705. The fax phone number for this Group is (703) 308-9051.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Hieu Le

  
JACK B. HARVEY  
SUPERVISORY PATENT EXAMINER